Author Index

Abel DJ, 351
Agnew J, 330
Alexander GC, 368
Allen RL, 351, 494

Ballachanda BB, 1
Beamer SL, 429
Beauchaine KL, 337
Beck LB, 181
Bishop RD, 214
Boppana SB, 283
Branham K, 84
Britt WJ, 283

Cacace AT, 239
Calder JH, 76, 514
Campbell KCM, 361
Carlson-Smith C, 446
Carpenter MD, 494
Cestnick L, 501
Cevette MJ, 323
Champlin CA, 46, 64, 489
Cherry R, 52
Christ A, 390
Clukey C, 411
Cord MT, 475, 540
Cousins JP, 239
Cox RM, 368
Cranford JL, 36, 494
Cruickshanks KJ, 67

Dahle AJ, 283
Dalebout SD, 12
Daly DM, 454
Daniloff RG, 454
Davenport ML, 446
DeChicchis AR, 36, 97
Dekok K, 230
Demorest ME, 203
Dreith S, 300
Drew D, 323
Duddy D, 295
Durrant J, 316

Edwards B, 540
Emmer MB, 57, 348, 464
English K, 84, 348

Fausti SA, 103
Fisher AL, 36
Fowler KB, 283
Fox LG, 12
Friesen LM, 418

Gfeller K, 390
Goebel J, 295
Gopal KV, 454
Gould HJ, 411
Grant KW, 429
Gravel JS, 190
Green WB, 91
Greenwald R, 273, 383

Halpern J, 523
Hayes D, 300
Hecht P, 52
Henderson JA, 156
Henry JA, 103, 138
Holcomb LM, 224
Holden LK, 203
Holden TA, 203
Hosford-Dunn H, 523
Hymel MR, 36

Idler C, 52

Jacobson GP, 76, 156, 514
Jastreboff MM, 162
Jastreboff PJ, 162
Jenstad LM, 23
Jerger J, 273, 383, 465, 467, 501
Johnson TW, 484

Kahn JM, 351
Kaltenbach JA, 125
Keith RW, 438
Kempton JB, 103
Klemens JJ, 361
Knutson JF, 390
Konkle DF, 224

Leek MR, 475
Lindley GA IV, 316

Marion MS, 323
Martin FN, 46, 64, 489
Martin JS, 46
McCaslin DL, 156
Meikle MB, 138
Mitchell CR, 103
Moller AR, 115
Moncrieff D, 273, 383
Moodie KS, 230
Moushegian G, 1
Mueller HG, 561
Murray KT, 390
Musiek F, 467

Nelson R, 309
Nerbonne MA, 224
Nondahl DM, 67
Nozza RJ, 97

Olson L, 540

Palmer CV, 316, 570
Pass RF, 283
Pennartz L, 454
Perez DD, 489
Peterein J, 295
Potts LG, 181
Pratt S, 316
Pumford JM, 23

Ricketts T, 561
Rojeski T, 84
Roush J, 446
Rubinstein A, 52
Ruscetta MN, 570

Schairer KS, 411
Schuchman G, 181
Schwab BM, 494
Scollie SD, 23, 230
Seewald RC, 23, 230
Seipel A, 273, 383
Serpanos YC, 190
Shannon RV, 418
Silman S, 57, 348, 464
Silverman CA, 57, 348, 464
Simmons JL, 337
Sininger YS, 309
Sinks B, 295
Skinner MW, 203
Slattery WH III, 418
Souza PE, 214
Stockley KB, 91
Surr RK, 540

Tasciyan T, 239
Thornton JM, 330
Todd NW, 97
Trautwein PG, 309
Trune DR, 103
Tweed TS, 67
Tyler RS, 390

Valente M, 181, 295
Vernon JA, 293

Walden BE, 429, 475, 540
Wambacq I, 273, 383
Webb TM, 323
Wildmo L, 464
Wiley TL, 67
Witt S, 390
Wright JD, 283
Wynne MK, 351

Yellin MW, 484

Subject Index

AAI. *See* Aided Audibility Index
ABR. *See* Auditory brainstem response
Acoustic admittance, 97–102
Acquired bilateral peripheral vestibular system impairment, 514–520
AEP. *See* Auditory evoked potential
AERP. *See* Auditory event-related potential
Aging, 383–389
AI. *See* Articulation Index
Aided Audibility Index (AAI), 214–222, 223
AIED. *See* Autoimmune inner ear disease
American National Standards Institute (ANSI), 64–66, 67–74
Amplification
nonlinear, 214–222, 223
satisfaction with, 523–539
ANSI. *See* American National Standards Institute
Anticipatory strategy training, 52–55
APDs. *See* Auditory processing disorders
Articulation Index (AI), 224–228, 229
Attention, 257–258
Audibility, 214–222, 223

Author Index

Abel DJ, 351
Agnew J, 330
Alexander GC, 368
Allen RL, 351, 494

Ballachanda BB, 1
Beamer SL, 429
Beauchaine KL, 337
Beck LB, 181
Bishop RD, 214
Boppana SB, 283
Branham K, 84
Britt WJ, 283

Cacace AT, 239
Calder JH, 76, 514
Campbell KCM, 361
Carlson-Smith C, 446
Carpenter MD, 494
Cestnick L, 501
Cevette MJ, 323
Champlin CA, 46, 64, 489
Cherry R, 52
Christ A, 390
Clukey C, 411
Cord MT, 475, 540
Cousins JP, 239
Cox RM, 368
Cranford JL, 36, 494
Cruickshanks KJ, 67

Dahle AJ, 283
Dalebout SD, 12
Daly DM, 454
Daniloff RG, 454
Davenport ML, 446
DeChicchis AR, 36, 97
Dekok K, 230
Demorest ME, 203
Dreith S, 300
Drew D, 323
Duddy D, 295
Durrant J, 316

Edwards B, 540
Emmer MB, 57, 348, 464
English K, 84, 348

Fausti SA, 103
Fisher AL, 36
Fowler KB, 283
Fox LG, 12
Friesen LM, 418

Gfeller K, 390
Goebel J, 295
Gopal KV, 454
Gould HJ, 411
Grant KW, 429
Gravel JS, 190
Green WB, 91
Greenwald R, 273, 383

Halpern J, 523
Hayes D, 300
Hecht P, 52
Henderson JA, 156
Henry JA, 103, 138
Holcomb LM, 224
Holden LK, 203
Holden TA, 203
Hosford-Dunn H, 523
Hymel MR, 36

Idler C, 52

Jacobson GP, 76, 156, 514
Jastreboff MM, 162
Jastreboff PJ, 162
Jenstad LM, 23
Jerger J, 273, 383, 465, 467, 501
Johnson TW, 484

Kahn JM, 351
Kaltenbach JA, 125
Keith RW, 438
Kempton JB, 103
Klemens JJ, 361
Knutson JF, 390
Konkle DF, 224

Leek MR, 475
Lindley GA IV, 316

Marion MS, 323
Martin FN, 46, 64, 489
Martin JS, 46
McCaslin DL, 156
Meikle MB, 138
Mitchell CR, 103
Moller AR, 115
Moncrieff D, 273, 383
Moodie KS, 230
Moushegian G, 1
Mueller HG, 561
Murray KT, 390
Musiek F, 467

Nelson R, 309
Nerbonne MA, 224
Nondahl DM, 67
Nozza RJ, 97

Olson L, 540

Palmer CV, 316, 570
Pass RF, 283
Pennartz L, 454
Perez DD, 489
Peterein J, 295
Potts LG, 181
Pratt S, 316
Pumford JM, 23

Ricketts T, 561
Rojeski T, 84
Roush J, 446
Rubinstein A, 52
Ruscetta MN, 570

Schairer KS, 411
Schuchman G, 181
Schwab BM, 494
Scollie SD, 23, 230
Seewald RC, 23, 230
Seipel A, 273, 383
Serpanos YC, 190
Shannon RV, 418
Silman S, 57, 348, 464
Silverman CA, 57, 348, 464
Simmons JL, 337
Sininger YS, 309
Sinks B, 295
Skinner MW, 203
Slattery WH III, 418
Souza PE, 214
Stockley KB, 91
Surr RK, 540

Tasciyan T, 239
Thornton JM, 330
Todd NW, 97
Trautwein PG, 309
Trune DR, 103
Tweed TS, 67
Tyler RS, 390

Valente M, 181, 295
Vernon JA, 293

Walden BE, 429, 475, 540
Wambacq I, 273, 383
Webb TM, 323
Wildmo L, 464
Wiley TL, 67
Witt S, 390
Wright JD, 283
Wynne MK, 351

Yellin MW, 484

Subject Index

AAI. *See* Aided Audibility Index
ABR. *See* Auditory brainstem response
Acoustic admittance, 97–102
Acquired bilateral peripheral vestibular system impairment, 514–520
AEP. *See* Auditory evoked potential
AERP. *See* Auditory event-related potential
Aging, 383–389
AI. *See* Articulation Index
Aided Audibility Index (AAI), 214–222, 223
AIED. *See* Autoimmune inner ear disease
American National Standards Institute (ANSI), 64–66, 67–74
Amplification
nonlinear, 214–222, 223
satisfaction with, 523–539
ANSI. *See* American National Standards Institute
Anticipatory strategy training, 52–55
APDs. *See* Auditory processing disorders
Articulation Index (AI), 224–228, 229
Attention, 257–258
Audibility, 214–222, 223

Auditory brainstem response (ABR)
in children, 284, 286
selective serotonin reuptake inhibitors and, 454–462
from tone bursts, 103–112
Auditory distraction, 36–44
Auditory event-related potential (AERP), 36–44
Auditory evoked potential (AEP), 1–9, 12–21, 36–44
Auditory nervous system, 122, 128
Auditory neuropathy, 309–314, 337–346
Auditory neuroscience, 239–263
Auditory processing disorders (APDs)
in children, 57–62, 348–349, 438–445, 464–465, 467–473
reduced motivation in, 57–62, 464–465
selective serotonin reuptake inhibitors and, 454–462
See also Central auditory processing disorder
Auditory temporal processing, 501–512
Aural acoustic admittance measures, 97–102
Autoimmune inner ear disease (AIED), 361–367

Balance disability, 76–82
Balance Function Test (BFT), 76–82
Behind-the-ear (BTE) hearing aids, 23–35, 181–189, 562–569, 575
BFT. *See* Balance Function Test
Bilateral peripheral vestibular system impairment, 514–520
Binaural interaction tests, 1–9
Binaural interference, 494–500
Brain map, 36–44
BTE. *See* Behind-the-ear (BTE) hearing aids
Bursting, 131
BZ5 hearing aid, 540–559

CAPD. *See* Central auditory processing disorder
Capillaries, 252
Categorical loudness judgments, 570–574
Central auditory processing disorder (CAPD)
children with, 57–62, 348–349, 464–465
mismatch negativity and, 12–21
Central nervous system (CNS), 120–122, 239–263
Cerumen, 352–353
Cervico-ocular reflex (COR), 519–520
Children
auditory brainstem response in, 284, 286
with auditory processing disorder, 57–62, 348–349, 438–445, 464–465, 467–473
hearing loss in, 283–289, 291, 300–306
loudness growth in, 190–201
preferred listening levels in, 230–237
reduced motivation in, 57–62, 464–465
Turner syndrome in, 446–452
tympanometric measurements in, 97–102
Chronic pain, 115–123
Cisplatin, 323–328
CMM. *See* Cross-modality matching
CMV. *See* Cytomegalovirus
CNS. *See* Central nervous system
Cochlear implants
auditory neuropathy and, 309–314
effects of electrode location in, 418–427
electrical stimulation and, 203–212, 418–427
music and, 390–405
tinnitus masking and, 293–294
Communication Profile for the Hearing Impaired (CPHI), 477–482
Compression, wide dynamic range, 214–223, 540–559, 570–574
CON. *See* Continuous tone
Conductive hearing loss, 446–452
Connected Speech Test (CST), 543–559
Consonants, 214–222, 273–282, 422
CON-SOT-LOT test, 46–50
Continuous tone (CON), 46–50
Contour Test of Loudness Perception, 570–574
COR. *See* Cervico-ocular reflex
Counseling skills, 84–90, 114
CPHI. *See* Communication Profile for the Hearing Impaired
Cross-modality matching (CMM), 190–201
CST. *See* Connected Speech Test
Cytomegalovirus (CMV), 283–289, 291, 300–306

Deafness. *See* Hearing loss
DHI. *See* Dizziness Handicap Inventory
DI. *See* Directivity Index
Dichotic listening, 383–389
Digital hearing aids, 330–335, 540–559
Digital signal processing (DSP), 330–335
Directional hearing aids, 23–35, 540–559, 561–569, 575
Directivity Index (DI), 561–569, 575
Distance education, 84–90, 114
Distortion-product otoacoustic emissions (DPOAEs)
increased amplitudes, 323–328
to single and simultaneous tone pairs, 411–417
Dizziness, 76–82, 516–517
Dizziness Handicap Inventory (DHI), 76–82, 516–517
DPOAEs. *See* Distortion-product otoacoustic emissions
DSP. *See* Digital signal processing
Dual-microphone hearing instruments, 23–35, 181–189, 540–559
Dyslexia, 501–512

Ear impressions, 351–360
Early Speech Perception (ESP) test, 313–314
ECHO. *See* Expected Consequences of Hearing aid Ownership
Echo planar imaging (EPI), 246–247
Elderly
auditory distraction in, 36–44
hearing handicap in, 67–74
Electrical stimulation, 203–212, 418–422
Electrodes, 418–427
Electro-oculography, 276–280
Electrophysiologic indices, 36–44
EPI. *See* Echo planar imaging
ERP. *See* Event-related potential
ESP. *See* Early Speech Perception (ESP) test
Event-related functional MRI, 250–252
Event-related potential (ERP), 36–44, 273–282, 383–389
Expected Consequences of Hearing aid Ownership (ECHO), 368–382, 407

FFR. *See* Frequency-following response
*f*MRI. *See* Functional magnetic resonance imaging
Foreign body, 355
Frequency-following response (FFR), 1–9
Functional magnetic resonance imaging (*f*MRI), 239–263

GN ReSound digital BZ5 hearing aid, 540–559
Gradient-recalled echo (GRE), 246
GRE. *See* Gradient-recalled echo
Group delay, 330–335

Handicap
dizziness, 76–82, 516–517
tinnitus, 156–160
See also Hearing handicap
HAPI. *See* Hearing Aid Performance Inventory
Hearing Aid Performance Inventory (HAPI), 478–482
Hearing aids
adaptation to loudness and environmental stimuli in newly fitted users, 316–321
behind-the-ear, 23–35, 181–189, 562–569, 575
benefits from, 429–436, 475–482, 540–559, 561–569, 575
digital, 330–335, 540–559
directional, 23–35, 540–559, 561–569, 575

fitting, 368–382, 407, 523–539, 570–574
in-the-ear, 23–35, 181–189, 562–569, 575
outcome measures, 368–382, 523–539
Profile of Hearing Aid Performance (PHAP), 318–321
Hearing handicap
articulation index and, 224–228, 229
in elderly, 67–74
hearing aid benefit and, 475–482
Hearing Handicap Inventory for the Elderly–Screening (HHIE-S), 67–74
Hearing in Noise Test (HINT), 23–35, 181–189, 318–321, 478–482, 562–569, 575
Hearing limits, 64–66
Hearing loss
in children, 283–289, 291, 300–306
conductive, 446–452
high frequency, 429–436, 561–569, 575
nonorganic, 46–50
postlingual, 52–55
sensorineural, 283–289, 291, 316–321, 361–367, 446–452
See also Hearing aids
Hematoma, 353–354
HHIE-S. *See* Hearing Handicap Inventory for the Elderly-Screening
High frequency hearing loss, 429–436, 561–569, 575
HINT. *See* Hearing in Noise Test
Hyperactivity, 122–123, 128
Hyperacusis, 162–175, 295–299
Hyperbilirubinemia, 337–346

IHAFF. *See* Independent Hearing Aid Fitting Forum
IID. *See* Interaural intensity difference
Imaging
echo planar, 246–247
magnetic resonance, 239–263
Independent Hearing Aid Fitting Forum (IHAFF), 570–574
Infants, 97–102
Inner ear disease, 361–367
Interaural asymmetry, 383–389
Interaural intensity difference (IID), 1–9
Interaural symmetry index (ISI), 280–281
Interaural time difference (ITD), 1–9
Interstimulus interval (ISI), 570–574
In-the-ear (ITE) hearing aids, 23–35, 181–189, 562–569, 575
ISI. *See* Interaural symmetry index; Interstimulus interval
ITD. *See* Interaural time difference
ITE. *See* In-the-ear (ITE) hearing aids

KEMAR. *See* Knowles Electronics' Mannikin for Auditory Research
Knowles Electronics' Mannikin for Auditory Research (KEMAR), 572

LAEP. *See* Late auditory evoked potential
Late auditory evoked potential (LAEP), 36–44
Lengthened off-time pulsed tone (LOT), 46–50
Lexical reading, 501–512
Listening
dichotic, 383–389
habits, 390–406
levels, 230–237
List equivalency, 91–95
LOT. *See* Lengthened off-time pulsed tone
Loudness
adaptation to, 316–321
judgments, 570–574
matching, 143–148, 156–160, 178, 190–201
measures, 203–212

Magnesium deficiency, 323–328
Magnetic resonance imaging (MRI), 239–263
Magnetic resonance spectroscopy (MRS), 247–249
MAL. *See* Maximum acceptable loudness level
Masking, 140, 148–150, 293–294
Maximum acceptable loudness level (MAL), 203–212
Microphone, 23–35, 181–189, 540–559, 561–569, 575
Middle ear trauma, 351–360
Mismatch negativity (MMN), 12–21
MMN. *See* Mismatch negativity
Motivation, 57–62, 464–465
MRI. *See* Magnetic resonance imaging
MRS. *See* Magnetic resonance spectroscopy
MS. *See* Multiple sclerosis
Multiple sclerosis (MS), 484–488
Music, 390–405

NAL. *See* National Acoustic Laboratories
National Acoustic Laboratories (NAL), 230–237
Neuropathy, 309–314, 337–346
Neurophysiology, 125–134
Neuroscience, 239–263
NOHL. *See* Nonorganic hearing loss
Noise
Hearing in Noise Test, 23–35, 181–189, 318–321, 478–482, 562–569, 575
speech recognition in, 273–282, 475–482
See also Signal-to-noise ratio

N_1 response, 36–44
Nonlexical reading, 501–512
Nonlinear amplification, 214–222, 223
Nonorganic hearing loss (NOHL), 46–50
Normal hearing limits, 64–66
Northwestern University Auditory Test No. 6, 67–74, 91–95, 489–493, 522
Nucleus-22 cochlear implant, 418–427

OAEs. *See* Otoacoustic emissions
OHC. *See* Outer hair cell
Otoacoustic emissions (OAEs)
auditory neuropathy and, 337–346
in children, 284
transient evoked, 311–312, 456, 457
See also Distortion-product otoacoustic emissions
Outcome measures, 523–539
Outer hair cell (OHC), 323–328, 337–346

Pain, 115–123
Pediatrics. *See* Children
Perilymph fistula, 356–357
Peripheral vestibular system impairment, 514–520
PET. *See* Positron emission tomography
PHAB. *See* Profile of Hearing Aid Benefit
Phantom perceptions, 262–263
PHAP. *See* Profile of Hearing Aid Performance
Phonetic balance, 489–493, 522
Phonophobia, 166–168, 173–174
Pitch, 141–143, 146–148
PLLs. *See* Preferred listening levels
Positron emission tomography (PET), 259–260, 262
Postlingual hearing loss, 52–55
Preferred listening levels (PLLs), 230–237
PRESTO technique, 245, 247, 252, 261
Private practice, 523–539
Profile of Hearing Aid Benefit (PHAB), 429–436, 544–559
Profile of Hearing Aid Performance (PHAP), 318–321
Psychoacoustics, 138–153
PTA. *See* Pure-tone average
P_{300} response, 36–44
P_2 response, 36–44
Pure-tone average (PTA), 64–74

Quinine, 126, 129–130

Reading, 501–512
Residual inhibition, 150–151
ReSound digital BZ5 hearing aid, 540–559

SAC. *See* Self-Assessment of Communication
SADL. *See* Satisfaction with Amplification in Daily Life
Salicylate, 126, 128–129
Satisfaction with Amplification in Daily Life (SADL), 523–539
SCAN·A test, 454–462
SCAN-C test, 438–445

Selective serotonin reuptake inhibitors (SSRIs), 454–462
Self-Assessment of Communication (SAC), 224–228, 229
Sensorineural hearing loss (SNHL), 283–289, 291, 316–321, 361–367, 446–452
Serotonin, 454–462
Signal processing, 330–335
Signal-to-noise ratio (SNR), 23–35, 181–189, 561–569, 575
Significant Other Assessment of Communication (SOAC), 224–228, 229
Simultaneous tone pairs, 411–417
Single tone pairs, 411–417
SNHL. *See* Sensorineural hearing loss
SNR. *See* Signal-to-noise ratio
SOAC. *See* Significant Other Assessment of Communication
Sodium salicylate, 128–129
SOT. *See* Standard off-time pulsed tone
Sound
  intense, 130
  See also Noise
Spectroscopy, 239–263
Speech
  competition, 36–44, 273–282
  connected, 543–559
  perception, 313–314
  See also Speech recognition
Speech recognition
  with dual microphone, 23–35, 548–550
  in noise, 273–282, 475–482
  with Nucleus-22 cochlear implant, 418–427
  tests, 52–55
  thresholds, 475–482, 496–500
Spin echo, 246
SSRIs. *See* Selective serotonin reuptake inhibitors
Standard off-time pulsed tone (SOT), 46–50
Subjective categorical loudness judgments, 570–574
Susac syndrome, 484–488

TAC. *See* Test of Auditory Comprehension
Telephone use, 536, 538
Temporal discharge, 131–132
Temporal processing, 501–512
TEOAEs. *See* Transient evoked otoacoustic emissions
Test of Auditory Comprehension (TAC), 314
Test of Memory and Learning (TOMAL), 504–512
THI. *See* Tinnitus Handicap Inventory
Tinnitus
  chronic pain and, 115–123
  hyperacusis and, 162–175
  imaging, 259–262
  loudness matching, 143–148, 156–160, 178
  masking with cochlear implant, 293–294
  neurophysiologic mechanisms of, 125–134
  pitch, 141–143, 146–148
  psychoacoustic measures of, 138–153
  reliability testing, 156–160, 178
Tinnitus Handicap Inventory (THI), 156–160
Tinnitus Retraining Therapy (TRT), 162–175
TOMAL. *See* Test of Memory and Learning
Tone
  bursts, 103–112
  pairs, 411–417
  pulsed, 46–50
  pure, 64–74
Tonotopic organization, 132–133, 255
Transient evoked otoacoustic emissions (TEOAEs), 311–312, 456, 457
Trauma, 351–360
TRT. *See* Tinnitus Retraining Therapy
Turner syndrome, 446–452
Tympanic membrane, 351–360
Tympanometry, 97–102

VCV. *See* Vowel-consonant-vowel
VEOG. *See* Vertical electro-oculography
Vertical electro-oculography (VEOG), 276–280
Vestibular system, 76–82, 514–520
Vestibulocular reflex (VOR), 76–82, 514–520
VIOLA. *See* Visual input/output locator algorithm
Visual input/output locator algorithm (VIOLA), 570–574
VOR. *See* Vestibulocular reflex
Vowel-consonant-vowel (VCV), 214–222, 273–282
Vowels, 422

WDRC. *See* Wide dynamic range compression
Wide dynamic range compression (WDRC), 214–223, 540–559, 570–574
Word recognition
  Northwestern University Auditory Test, 91–93, 489–493, 522
  phonetic balance in, 489–493, 522
  scores, 494–500